Class A

0	Network (7 bits)	Local address (24 bits)

Class B

10	Network (14 bits)	Local address (16 bits)

Class C

110	Network (21 bits)	Local address (8 bits)

Class D

1110	Multicast address (28 bits)

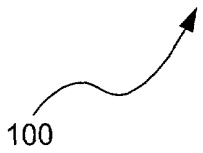

Figure 1
(Prior Art)

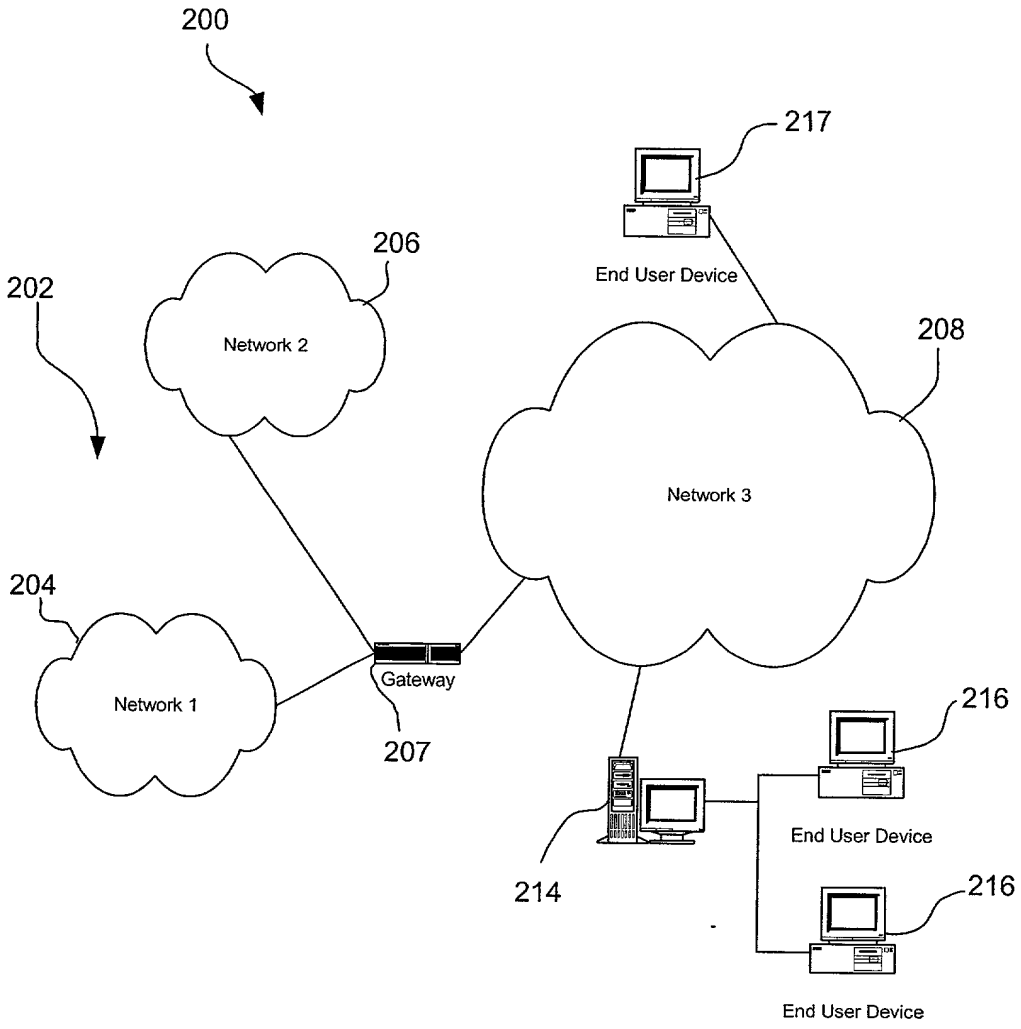
200
217
End User Device
206
202
Network 2
208
Network 3
204
Network 1
Gateway
207
216
End User Device
214
216
End User Device

Figure 2

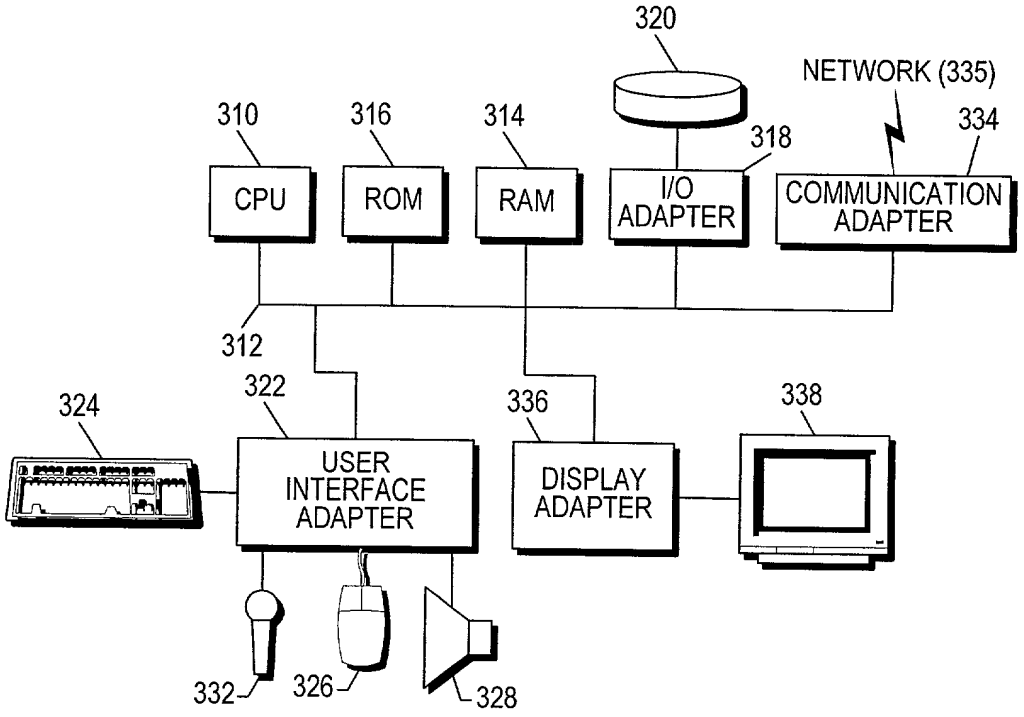
320
NETWORK (335)
310
316
314
318
334
CPU
ROM
RAM
I/O ADAPTER
COMMUNICATION ADAPTER
312
322
324
336
338
USER INTERFACE ADAPTER
DISPLAY ADAPTER
332
326
328

Figure 3

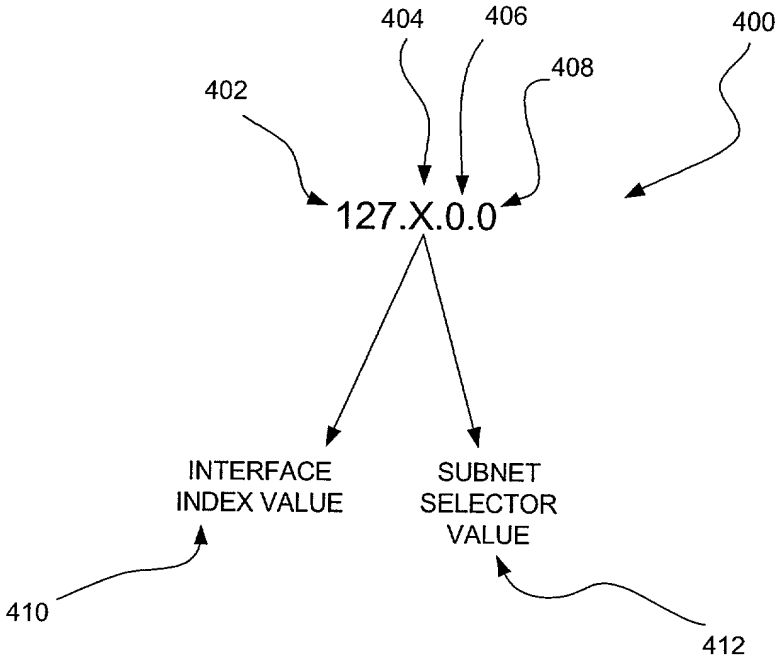
404
406
400
408
402
127.X.0.0
INTERFACE
INDEX VALUE
SUBNET
SELECTOR
VALUE
410
412

Figure 4

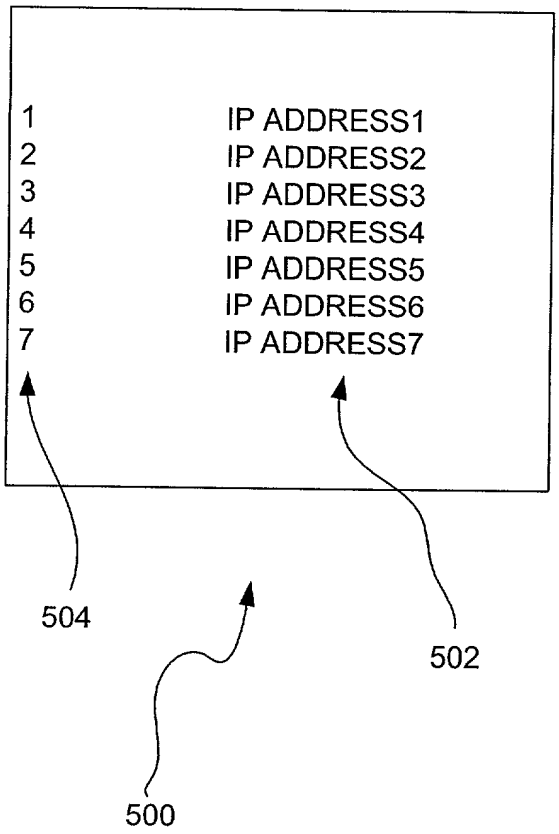
1 IP ADDRESS1
2 IP ADDRESS2
3 IP ADDRESS3
4 IP ADDRESS4
5 IP ADDRESS5
6 IP ADDRESS6
7 IP ADDRESS7
504
502
500

Figure 5

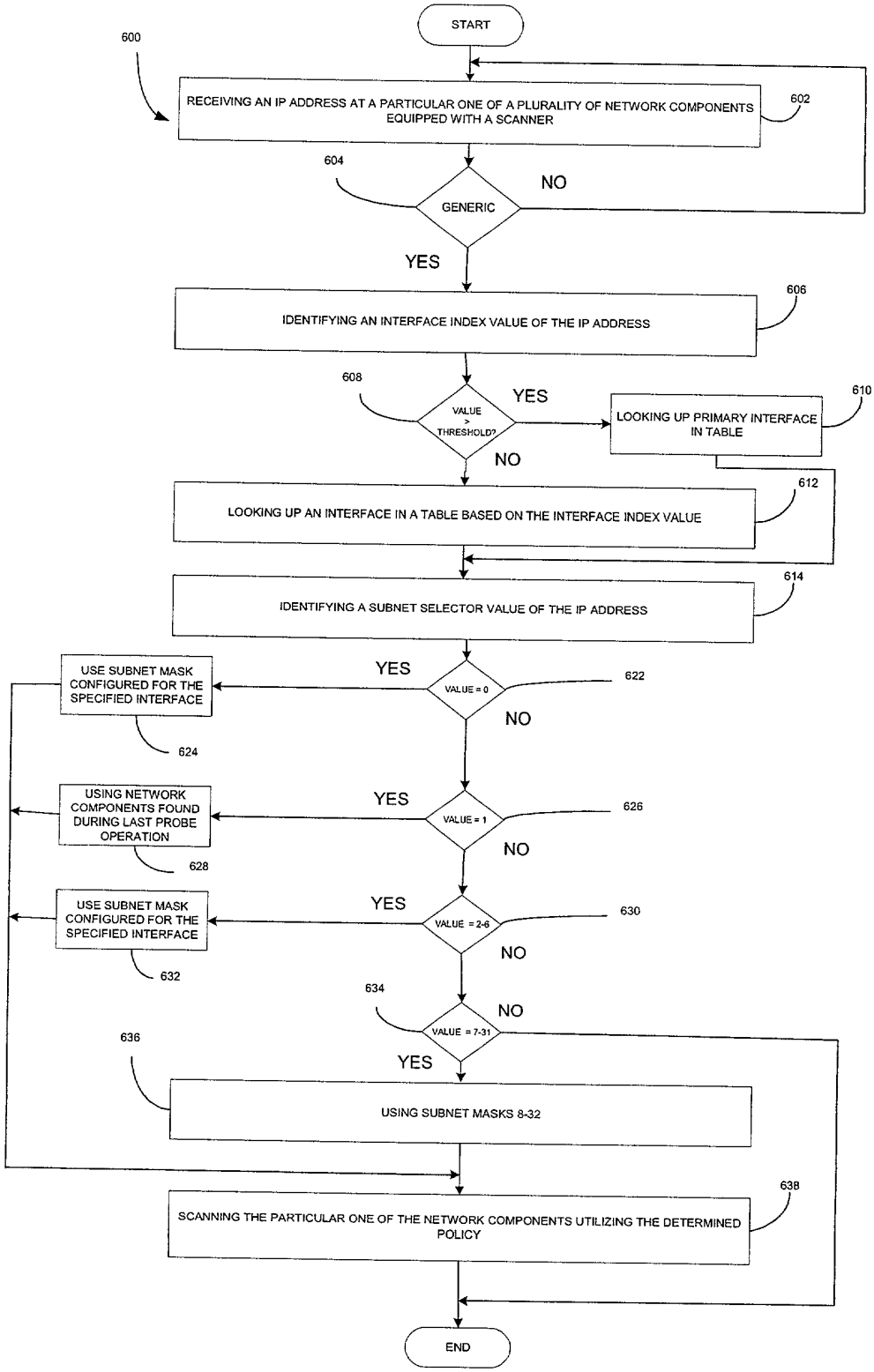
START
600
RECEIVING AN IP ADDRESS AT A PARTICULAR ONE OF A PLURALITY OF NETWORK COMPONENTS EQUIPPED WITH A SCANNER
602
604
GENERIC
NO
YES
IDENTIFYING AN INTERFACE INDEX VALUE OF THE IP ADDRESS
606
608
VALUE > THRESHOLD?
YES
LOOKING UP PRIMARY INTERFACE IN TABLE
610
NO
LOOKING UP AN INTERFACE IN A TABLE BASED ON THE INTERFACE INDEX VALUE
612
IDENTIFYING A SUBNET SELECTOR VALUE OF THE IP ADDRESS
614
YES
VALUE = 0
622
USE SUBNET MASK CONFIGURED FOR THE SPECIFIED INTERFACE
624
NO
YES
VALUE = 1
626
USING NETWORK COMPONENTS FOUND DURING LAST PROBE OPERATION
628
NO
YES
VALUE = 2-6
630
USE SUBNET MASK CONFIGURED FOR THE SPECIFIED INTERFACE
632
NO
634
NO
VALUE = 7-31
636
YES
USING SUBNET MASKS 8-32
638
SCANNING THE PARTICULAR ONE OF THE NETWORK COMPONENTS UTILIZING THE DETERMINED POLICY
END

Figure 6